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EXAMINER

NGUYEN, TRAN N

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/629,034	<b>Applicant(s)</b> ZALESKI, JOHN R.	
	<b>Examiner</b> Tran Nguyen	<b>Art Unit</b> 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Notice to Applicant***

This communication is in response to the communication filed 06/26/2008.

Pending claim(s): 1-2, 4-12, 17. Amended claim(s): 1-2, 17. Non-elected claim(s): 3, 13-16, 18-37.

### ***Response to Amendment***

As per the rejection of claims 1-2, 4-12 under 35 USC 101 imposed in the previous Office Action, this rejection is hereby maintained in view of Applicant's failure to properly traverse this rejection.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-2, 4-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, this claim recites a "system" comprising "a generator", "a communication interface", "a data processor", and "an output processor".

The specification discloses: "The processor 126 may be implemented in **software** and/**or** hardware" (page 5 line 18-19).

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When read in light of the specification and the level of ordinary skill in the art, Examiner, in applying the broadest and most reasonable interpretation, interprets “generator” and “interface” to recite software embodiments, and “processor” to recite software and/or software embodiments.

Although claim 1 may envelop some embodiments of software tangibly embodied on a computer readable medium, claim 1 also envelops some embodiments that are software *per se*, i.e. wherein the processor is implemented purely in software as is consistent with the specification.

As such, the claim appears to envelop software *per se*. Therefore, the claim is directed towards nonstatutory subject matter. See MPEP 2106.01.

All claims dependent thereon, namely claims 2, 4-12, fail to remedy these deficiencies, and are therefore rejected for at least the same rationale.

Additional clarification is requested.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claim(s) 1, 4-7, 9-10 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Crawford (5331549).

As per claim 1, Crawford teaches a system (Abstract) capable of distributing digitized patient vitals data (reads on "patient medical parameters") (column 3 line 61-68), comprising:

(a) software (reads on "a generator") capable of providing a graphical user interface (reads on "generating data representing at least one displayed user interface image" (Figure 6), wherein the user is capable of using the GUI to perform the following (reads on "enabling a user to enter configuration data supporting user selection of"):

(i) a plurality of vital signs (reads on "patient parameter types") (Figure 6 label 72);

(ii) select a patient (reads on "an associated patient") (Figure 4-5, 7);

(iii) setting the status of the patient (reads on "predetermined filtering criteria"), wherein the system is capable of ascertaining the time between readings (reads on "a time interval") (Figure 6 label 70) of patient data from the vital signs monitor (reads on "acquisition of patient medical parameter values from at least one patient monitoring device of said plurality of patient parameter types of said user selected associated patient") (Figure 1 label 12);

(b) a central server (reads on "a communication interface") (Figure 1 label 16) capable of receiving patient vital signs data in an RS485 format (reads on "a

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first data format”) (column 4 line 5-27) from a plurality of patient monitors attached to a plurality of patients (Figure 1 label 12), wherein the patient vital signs data is capable of being monitored and received at a sporadic, semi-continuous, or continuous level specified by a user based on step (a)(iii) above (reads on “a user selectable acquisition receiving interval”) (column 12 line 10-23);

(c) the central server (reads on “a data processor”) capable of using software embodied on the central server to select a subset (reads on “filtering criteria”) of the received patient vital signs data for a specific patient (Figure 4) based on step (a)(iii) above (Figure 6 label 70), wherein a user is capable of using the system to specify selection criteria comprising:

(a) selecting a limited number of vital signs for monitoring (column 7 line 42, Figure 6 label 72);

(b) selecting a specific patient (Figure 4);

(c) excluding other vital signs that the vital signs monitor is capable of monitoring that are not selected (column 4 line 28-32, column 7 line 42, Figure 6 label 72);

(d) the central server (reads on “an output processor”) capable of converting the RS485 format into another format suitable for communication with a PC (reads on “a different second data format”) (Figure 1 label 24), and using software embodied on the central server to output the selected vital signs (Figure 6 label 72) with the time and date of the vital signs reading (Figure 4) for display on the PC (Figure 1 label 18).

As per claim 4, Crawford teaches that the central server is capable of using software embodied on the central server to select a subset of the received patient vital signs data for a specific patient (Figure 4), wherein a user is capable of using the system to specify selection criteria comprising:

- (a) selecting a limited number of vital signs for monitoring (column 7 line 42, Figure 6 label 72);

- (b) selecting a specific patient (Figure 4).

As per claim 5, Crawford teaches that the system is capable of storing the received patient vital signs data (Figure 1 label 20), wherein the stored data is capable of being used as part of:

- (a) a historic record of vital signs (reads on “a patient electronic record”) (column 2 line 24-25);

- (b) an alarm (Abstract);

- (c) a trends graph (reads on “raw data file”) (Figure 7);

- (d) a trends graph (reads on “a statistic complication file”) (Figure 7).

As per claim 6, Crawford teaches that the system is capable of storing the received patient vital signs data including the type of vital sign for historical analysis (Figure 7).

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As per claim 7, Crawford teaches that the system is capable displaying vital signs for a specific type selectable by a user via a radio button (reads on "a displayed user interface image") (Figure 7).

As per claim 9, Crawford teaches that the system is capable of displaying:

- (a) patient name (Figure 4 label 61);
- (b) patient room and bed (Figure 3-4);
- (c) location of the patient's room (reads on "a hospital unit identifier") (Figure 3);
- (d) the type of vital signs (Figure 4);
- (e) vital signs for the selected vital signs (Figure 4).

Insofar as the remainder of the claim is concerned, the applied art need not teach these limitations in view of "at least one of".

As per claim 10, Crawford teaches that the system is capable of monitoring pulse (reads on "heart rate").

Insofar as the remainder of the claim is concerned, the applied art need not teach these limitations in view of "at least one of".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to



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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim(s) 2, 17 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford in view of di Rienzo (Continuous vs intermittent blood pressure measurements in estimating 24-hour average blood pressure) and Applicant Admitted Prior Art (AAPA).

It is noted that the official notice taken in the previous Office Action is taken to be AAPA because Applicant failed to adequately traverse Examiner's assertion.

As per claim 2, Crawford further teaches continuous data-logging of blood pressure for a 24 hour period (Figure 7).

Crawford does not teach "user selection of a time interval over which a patient parameter type... is averaged".

Di Rienzo teaches calculating average 24-hour BP values using continuous and intermittent data (page 264 Abstract).

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At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of di Rienzo within the embodiment of Crawford with the motivation of reducing complexity and cost of computer programs and facilities that monitor blood pressure (di Rienzo; page 269 column 1 paragraph 1).

Crawford further teaches that the central server is capable of sending digitized patient vital signs data to local or remote workstations (column 3 line 65-68) via modem (reads on "automatically selects" "communication protocol" and "destination port") (column 3 line 53-55).

Crawford does not teach HL7.

AAPA teaches that the HL7 data format is old and well established in the art of health care messaging.

All component parts are known. The only difference is the combination of "old elements" into a single embodiment.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of AAPA within the embodiment of Crawford and di Rienzo, since the operation of the messaging protocol is in no way dependent on the patient monitoring system, and a standard messaging protocol may be used with a patient monitoring system to achieve the predictable result of communicating health care messages.

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As per the set of claim(s): 17, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 2, respectively, and incorporated herein.

Claim(s) 8 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford in view of Matthews (5860124).

As per claim 8, Crawford teaches that the system is capable of monitoring large numbers of patients simultaneously (column 1 line 56-58, column 4 line 18-21). Crawford further teaches that data is stored for analysis at a later time (column 4 line 45-47). Crawford further teaches an embodiment wherein historical data is displayed for the previous twenty-four hours based on user selection (column 8 line 58-60).

Crawford does not teach "overwriting of existing data" or "adding to existing data in said storage file".

Matthews teaches a system capable of storing a stream of data, wherein if space is available, data is appended to the end of the file (column 2 line 40-51, Figure 5). Otherwise, the oldest portion of the file is overwritten (column 2 line 40-51, Figure 5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Matthews within the embodiment of Crawford with the motivation of storing streaming data when storage space is exceeded (Matthews; column 2 line 36-37).

Claim(s) 11-12 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford in view of Teller (6605038).

As per claim 11, Crawford teaches displaying historical trend graph for a patient pulse rate (Figure 7).

Crawford does not teach “adaptively averages”.

Teller teaches calculating an average heart rate over a predefined period of time, wherein heart rate is measured via a patient monitor (column 5 line 31-44).

All component parts are known. The only difference is the combination of “old elements” into a single embodiment.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Teller within the embodiment of Crawford, since the operation of the average heart rate is in no way dependent on the patient monitoring system, and a standard heart rate analysis may be used with a patient monitoring system to achieve the predictable result of determining trends for a patient’s historical data.

As per claim 12, this claim is rejected for at least the same rationale as applied to claim 11 above, and incorporated herein.

Crawford further teaches selecting the period to display historical trend data (column 8 line 55-63, Figure 7).

### ***Response to Arguments***

Applicant's arguments filed 06/26/2008 have been fully considered but they are not persuasive.

As per claim 1, on page 11-12 Applicant argues that the claimed invention is directed to statutory subject matter.

In making this argument, on page 11 Applicant asserts: "The specification clearly contemplates multiple combinations of elements in any form of hardware, software, or a combination thereof".

On page 12 Applicant asserts that the conventional meaning in the art of "processor" is "the logic circuitry that extracts, decodes, and executes instructions to cause a computer to operate on data".

The remainder of Applicant's assertion on page 11-12 refers to other exemplary embodiments and non-committal definitions of a "processor", and is therefore not germane to the rejection.

First, Examiner applies the broadest and most reasonable interpretation of "processor" in view of the specification and the level of ordinary skill in the art. Examiner does not disagree with Applicant's definition of "processor" as asserted on page 12. In fact, Examiner agrees that this is a fair and reasonable interpretation of "processor" as is known in the art.

Second, primacy has been given to the specification, wherein Applicant provides an exemplary embodiment of "processor" as being software *per se*. As

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indicated in the previous Office Action, Examiner acknowledges that “processor” also envelops statutory hardware embodiments. Nonetheless, Examiner submits that “processor” also envelops nonstatutory software *per se* embodiments, and therefore the claim is directed towards nonstatutory subject matter.

Specifically, Examiner submits the following evidence of software *per se* embodiments being enveloped by “processor”:

(a) “The processor 126 may be implemented in software and/or hardware” (Specification; page 5 line 18-19);

(b) “The specification clearly contemplates multiple combinations of elements in any form of hardware, software, or a combination thereof” (Remarks; page 12).

Based on the evidence presented above, Examiner submits that “processor” can be fairly interpreted to envelop the following embodiments:

- (1) software *per se*;
- (2) software and hardware;
- (3) hardware.

Examiner submits that this interpretation is fair and reasonable based on grammar rules of the English language, i.e. x and/or y implies a list consisting of x, y, and both x/y.

Examiner acknowledges that embodiments (2) and (3) above are statutory. The basis for the rejection under 35 USC 101 is embodiment (1), wherein software *per se* is enveloped by the claim language.

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Examiner submits, as acknowledged by Applicant on page 12, that the standard definition for “processor” as is known in the art is embodiments (2) and (3). Nonetheless, primacy has been given to the specification in the sense that Applicant’s exemplary embodiment (1) has also been considered to be an embodiment of “processor”.

This is not an importation of limitations from the specification into the claim. In fact, this is a broadening of the claim interpretation of “processor” because although software *per se* embodiments are traditionally not considered to be a proper “processor”, Examiner has considered these embodiments to be enveloped by “processor” as disclosed by the specification.

Therefore, Examiner has broadened the definition of “processor” to reasonably include software *per se* embodiments in view of the specification.

On page 11 Applicant further argues that “the Rejection artificially and unduly limits the scope of Applicants invention”.

Examiner strongly disagrees. In applying embodiment (1) above to the definition of “processor”, Examiner has in fact broadened the scope of Applicant’s invention by encompassing additional embodiments not traditionally considered to be a “processor”. Therefore, the interpretation of “processor” as adopted by Examiner in view of the level of ordinary skill in the art and the specification in fact broadens the scope of Applicants invention in light of Applicant’s disclosure.

Again, Applicant is advised that only some embodiments of “processor” are nonstatutory. These nonstatutory embodiments come from Applicant’s specification. Based on the level of ordinary skill alone, software *per se* embodiments would not be considered a “processor”; however, in view of the specification, software *per se* embodiments would be considered a “processor”.

Enveloping additional embodiments into the definition of a term as known in the art is not a narrowing of the definition, but is in fact a broadening of the definition in view of the specification.

Examiner does not take the position that “processor” envelops software *per se* embodiments and nothing else. Instead, Examiner takes the position that software *per se* embodiments, in addition to other statutory embodiments, are enveloped by “processor”.

To properly overcome this rejection, Applicant is invited to provide clarifications for the following:

(a) “The processor 126 may be implemented in software and/or hardware” (Specification; page 5 line 18-19);

(b) “The specification clearly contemplates multiple combinations of elements in any form of hardware, software, or a combination thereof” (Remarks; page 12).

Based on the specification and Applicant’s admission, “processor” may be software *per se*. While not limiting the scope of the claim, these embodiments are considered to be enveloped within the scope of the claim as an expansion of



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the claim scope from the interpretation afforded by the level of ordinary skill in the art *per se* and devoid of the specification.

In order to properly traverse this rejection, Applicant is requested to narrow the claimed embodiments to hardware embodiments only as to exclude software *per se* embodiments from the claim scope.

The reason to question this claim under 35 USC 101 was inserted by Applicant's specification and assertions; absence of such admission by Applicant would have rendered the claim statutory.

As per claim 1, on page 13 Applicant argues that the applied art teaches away from "enabling a user to enter configuration data supporting user selection of (i) a plurality of patient parameter types".

"Arguments that the alleged anticipatory prior art... teaches away from the invention' [are] not germane' to a rejection under section 102." *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424 (Cl. Ct. 1986) (quoting *In re Self*, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)). MPEP 2131.05.

Since claim 1 is rejected under 35 USC 102(b), Applicant's argument is not germane to the rejection.

On page 13 Applicant further argues that the applied art does not teach "selecting any additional or different signals or data in the system".

As admitted by Applicant on page 13, Crawford teaches at least six (6) vital signs.

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Examiner submits that six (6) vital signs fairly and reasonably meets "a plurality of patient parameter types".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., more than six vital signs, different vital signs than those taught by Crawford) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 13-14 Applicant asserts "Crawford explicitly rejects the acquisition of other types of patient parameters, stating "[t]he transmission and analysis of wave form is what requires hundreds of times more processing power".

Crawford teaches (column 7):

By limiting the vital signs monitored to six, it be- 15  
comes possible and feasible to monitor a large number  
of sites. Thus the system is particularly adapted to the  
general hospital situation more than to the intensive  
care unit situation (ICU). In an ICU situation, very  
specific and individual monitoring of many other pa- 20  
rameters and conditions may be involved. But the cost  
and complexity of doing such makes the ICU type of  
situation inappropriate and in fact not used in the gen-  
eral hospital situation. More particularly, it is also the  
depth of information gathered from each sign that in- 25  
creases the data required dramatically, not just the num-  
ber of signs monitored. The transmission and analysis of  
wave forms is what requires hundreds of times more  
processing power. However, it is useful only for a select  
few patients who are deemed critical enough to be 30  
placed in the high-cost ICU monitoring area. The six  
vital signs themselves are meaningful enough for most  
patients, and the number of patients who require this  
level of monitoring is a significant percentage of those  
occupying hospital rooms, a number many times greater 35  
than even the largest ICU's can handle.

According to Crawford, limiting the number of vital signs to six is based on  
the compromise between scalability and cost/processing power.

It is known in the prior art to monitor "many other parameters and  
conditions. But the cost of complexity of doing so makes the ICU type of  
situation appropriate and in fact not used in the general hospital situation" (line  
20-24).

Examiner submits the following points:

First, as technology progresses and the computer power of computers and software develops, it becomes cheaper and more feasible to perform previously inoperable software due to cost limitations.

Second, Crawford teaches that monitoring more than six parameters, and any parameter for that matter, is known in ICU embodiments. The problem with deploying an ICU solution into a general hospital is cost and complexity.

Therefore, Examiner submits that Crawford does not teach away from monitoring other vital signs. Instead, Crawford teaches that it is desirable to monitor other vital signs, but the ability to do so within a reasonable cost was beyond the level of ordinary skill in the art. Note the 1992 publication of Crawford.

Examiner further submits that as technology progresses, the level of ordinary skill in the art increases and is then able to accomplish software feats previously thought to be unrealizable.

On page 14 Applicant asserts the advantage of “monitoring of a significant number of parameters”.

Applicant does not clarify what “a significant number” is.

Examiner submits that ICU embodiments are known in the art, wherein many vital signs are monitored. Crawford further teaches that it is desirable to deploy these ICU systems into general hospital departments; however, the level of ordinary skill in the art prevents such a deployment within cost and complexity constraints.

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Therefore, Crawford compromises with six (6) vital signs as a compromise between cost and performance.

Examiner submits that Applicant's asserted advantages do not distinguish the claimed invention from Crawford and the level of ordinary skill in the art at the time Applicant's invention was made.

On page 14 Applicant further argues that the applied art do not teach "filtering criteria including a time interval between acquisition of patient medical parameter values".

Crawford teaches that the user can select the patient's status, thereby indicating that the patient is an outpatient, a normally mobile patient, or a bedridden patient (Figure 6 label 70). Crawford further teaches that based on the patient's status, the out-of-limit and off-line condition can be processed or ignored based on the patient's status (column 8 line 63 to column 9 line 20).

Based on the teachings of Crawford, it is known that a patient can be expected to be away from the bed for long periods of time (outpatient), short periods of time (mobile patient), or no period of time (bedridden patient) (reads on "a time interval"). Therefore, the system ignores readings when the patient is expected to be away from the bed (reads on "acquisition of patient medical parameter values").

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., controlling the frequency of data acquisition for a period of time

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wherein the patient remains connected to the monitoring device for the duration of the period) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Based on the evidence presented above, Examiner submits that the applied art anticipates the claimed invention.

As per claim 4, on page 15 Applicant asserts “Crawford describes an interface for data acquisition structured around a DDE (Dynamic Data Exchange) driver, which transmits only changes in data”.

Examiner submits that this is an inaccurate characterization of the prior art. Instead, Crawford teaches that the system is capable of monitoring continuous data (Figure 7).

Applicant is requested to point out the section in Crawford purported to teach only transmitting changes in data.

On page 15 Applicant further argues that the applied art do not teach “the acquisition of patient parameters “at a user selectable acquisition receiving interval selectable by a user for an individual parameter type and an individual patient”.

As discussed above, Crawford teaches that it is possible to select the time period of monitoring (Figure 6 label 70) and vital signs (Figure 6 label 72).

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Crawford further teaches that the user can select vital signs monitored and patient status for an individual room (column 5 line 67 to column 6 line 2, Figure 4-5).

Based on the evidence submitted above, Examiner submits that the applied art anticipates the claimed invention.

As per claim 7, on page 15 Applicant argues that the applied art do not teach “a displayed user interface image” to allow selection of a storage file for data “in response to user storage file type selection command”.

First, Applicant’s attention to claim 7: “said output processor communicates data”.

As recited, “data” is interpreted to be any data because Applicant has not referred to any previous pieces of data.

Second, Crawford teaches that the user can select the type of vital sign to monitor (page 6 paragraph 72). Crawford further teaches automatic storage, as admitted by Applicant on page 15.

Examiner submits that selecting various vital signs, the system of Crawford automatically stores data for the desired vital signs. Therefore, selection of the vital signs of interest is considered to be “user storage file type selection command”, wherein the user is capable of specifying what data should be stored as part of automatic selection (reads on “storage file type”).

Based on the evidence presented above, the applied art anticipates the claimed invention.

Applicant's arguments with respect to claim 17 on page 15-16 have been considered but are moot in view of the new ground(s) of rejection.

As per claim 2, on page 17 Applicant argues that the applied art do not teach "data conversion to accommodate use or storage of the data before sending it to other locations".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., data conversion to accommodate use or storage of the data before sending it to other locations) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Assuming *arguendo* that this limitation flows inherently therefrom, Crawford teaches converting data format prior to display and storage (Figure 1 label 14-15).

On page 17 Applicant further argues that Crawford do not teach "an output processor for converting said filtered identified parameters in said first data format to a different second data format".

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the



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rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In particular, Crawford teaches converting from one data format to another (Figure 1 label 14-15).

Crawford does not teach using the HL7 format; however, Official Notice was previously taken that using this data format to process medical data is old and well established in the art.

Therefore, the combination of “old elements” yielding predictable results is not patentable over the prior art of record.

On page 17 Applicant further asserts the advantage of “no need for configuration and use of fixed mapping files as were required in prior art”.

Examiner submits that this is a latent property of the HL7 data format. Therefore, the combination of Crawford and AAPA would yield the same advantage asserted by Applicant.

Therefore, the asserted advantage does not distinguish the claim over the prior art.

The remainder of Applicant's arguments with respect to claim 2 on page 17 have been considered but are moot in view of the new ground(s) of rejection.

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As per claim 8, Applicant's arguments on page 18 merely rehash arguments previously addressed above, and incorporated herein.

On page 18 Applicant further argues that the applied art do not teach "a user command to control communication of data "to said storage file"".

Crawford teaches storing data in a central data storage (reads on "storage file") (Figure 1 label 20).

Crawford further teaches selecting the period of time for data display, as admitted by Applicant on page 18.

Crawford does not teach overwriting or appending data to a file; however, Mathews teaches appending data to a file if space is available (column 2 line 40-51, Figure 5). Otherwise, the oldest portion of the file is overwritten (column 2 line 40-51, Figure 5).

Crawford teaches of controlling the amount of data required for display, and is therefore considered to be "a user command".

Matthews teaches storing file based space availability.

Therefore, the combination of Crawford and Mathews suggests "a user command to control communication of data to said storage file".

Applicant's attention is directed to claim 8:

- (a) "communicates data";
- (b) "said storage file".

Because claim 8 does not specify what data is communicated, Examiner interprets this limitation to recite any data.

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Similarly, because no “storage file” was previously recited, Examiner interprets this limitation to recite any file.

Therefore, claim 8 does not recite storing any particular data into a specific file. Instead, claim 8 broadly claims storing any data into any file.

Based on the evidence presented above, the applied art suggest the claimed invention.

As per claim 11, Applicant’s arguments on page 19 merely rehash arguments previously addressed above, and incorporated herein.

On page 19 Applicant further argues that the applied art do not teach “adaptively averages”.

In response to applicant's argument that the references are inoperable in combination, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In particular, Crawford teaches displaying all readings for a particular period (Figure 7).

Teller teaches that it is known in the art to calculate the average heart rate of an individual to determine the individual’s physiological state.

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The remainder of the features in Teller is not relied upon by Examiner in the rejection.

Additionally, claim 11 recites “adaptively averages values of an acquired patient parameter”.

Applicant’s argument on page 20 regarding monitoring additional parameters in Crawford is not germane to the claim because the claim recites calculating an average of patient data that is already acquired.

Therefore, Examiner submits that calculating an average heart rate from the displayed chart in Figure 7 of Crawford as taught by Teller is obvious to one of ordinary skill in the art at the time the invention was made with the motivation of determining the patient's state of health.

As per claim 12, on page 20 Applicant argues that the varying the displayed trend line by time period of Crawford is not equivalent to “number of values over which said parameter is to be averaged”.

Examiner submits that a trend line is a scatter plot over a continuous period of time (Crawford; Figure 7). By varying the period of time, the plot is shortened or lengthened based on user selection. The plot itself incorporates a plurality of distinct points as stored by the system, wherein the trend line is plotted as a smoothing function of the stored distinct data points.

Even though the trend line is displayed as a continuous line, Examiner submits that the data points stored by the vital signs monitor (Crawford; Figure 1

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label 12) are distinct points. And even though the time interval between each point is small, each point is still separate and distinct.

Assuming *arguendo* that mechanical monitors are capable of providing continuous readings, lengthen or shorten the period of interest suggests “number of values over which said parameter is to be averaged” because the amount of data used for average calculation can be varied.

Based on the evidence presented above, the applied art suggest the claimed invention.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Brown (6032119) teaches monitoring patient blood glucose level based on a prescribed time interval (Figure 5-E).

Applicant is invited to contact Examiner for suggestions on how to overcome the rejections presented hereinabove, or for suggestions on how to formulate arguments before filing an appeal brief.

The new ground(s) of rejection presented in this Office action, if any, was/were necessitated by Applicant's amendment. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran (Ken) N. Nguyen whose telephone number is 571-270-1310. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:00 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, C. Luke Gilligan can be reached on 571-272-6770. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. N./  
Examiner, Art Unit 3626  
08/12/2008

/Robert Morgan/  
Examiner, Art Unit 3626